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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,838	10/11/2001	Ryozo Yanagisawa	35.G2917	7730

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EXAMINER

ALPHONSE, FRITZ

ART UNIT

PAPER NUMBER

2675

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/973,838

Applicant(s)

YANAGISAWA ET AL.

Examiner

Fritz Alphonse

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

2. Claims 13-15, 19-24, are rejected under 35 U.S.C. 102(b) as being anticipated by Sato (U.S. Pat. No. 5,862,049).

As to claims 13-14, Sato (figs. 1, 5) shows a coordinate input apparatus comprising: a coordinate plate (note the vibration transfer plate 8 in figure 1) having a plurality of pieces of coordinate information (col. 2, lines 34-50; figure 5 shows areas 1 to 4 having a plurality of pieces of coordinate information) recorded thereon which correspond to X-coordinate values and/or Y-coordinate values (note in figure 5, the plurality of pieces of coordinate information each corresponding to X and Y-coordinate value; col. 5, lines 12-18) in a coordinate input effective region forming an X-Y coordinate plane; and input-indicating means (col. 3, lines 14-29), comprising means for detecting the coordinate information of said coordinate plate (col. 3, lines 14-29), wherein said coordinate plate has a layered structure comprising a plurality of layers deposited in a thickness direction, the coordinate information being stored between the layers of said layered structure (col. 3, lines 14-29).

In addition, as to claim 14, Sato teaches about displaying means disposed so as to oppose said coordinate plate and being capable of displaying two dimensional images (note in figure 2, the LCD display 11 disposed behind the vibration transfer plate 8 to display a two dimensional images; col. 2, lines 54-59).

As to claims 15 and 19, Sato (figs. 1, 5) shows a coordinate input apparatus comprising: a coordinate plate (i.e., vibration transfer plate 8) having a plurality of pieces of coordinate information recorded thereon (col. 2, lines 34-50); input-indicating means for indicating a position to be input on said coordinate plate and for detecting coordinate information in the vicinity of the position (col. 3, lines 14-29); and processing means for determining the coordinate of the position indicated by said input-indicating means from coordinate values in the coordinate information detected by said input-indicating means (see figure 7; col. 6, lines 10-45).

As to claim 20, Sato discloses an apparatus, further comprising a display apparatus formed as an input-output integrated type (note the display 11 formed behind the vibration transfer plate 8).

As to claims 21-22 and 24, Sato discloses an apparatus according to Claim 6, wherein the plurality of pieces of coordinate information are recorded on said coordinate plate so as to be positionally related to a plurality of display pixels (note the dot) forming display images of said display apparatus (see figure 1). Sano teaches that the a plurality of pieces of coordinate information are recorded so as to be located between a plurality of display pixels (see figure 5; col. 3, lines 59-67).

As to claim 23, Sato discloses a coordinate input-output unit of a coordinate input apparatus which inputs a coordinate using a coordinate reading device (col. 1, lines 5-10), said unit comprising; a coordinate plate (note the transfer plate 8) having a plurality of pieces of coordinate information recorded thereon (col. 2, lines 34-50), which are read by said coordinate reading device; and a display apparatus integrated with said coordinate plate together (note the LCD display 11), wherein the coordinate information is recorded on said coordinate plate on the

basis of the arrangement of a plurality of display pixels forming display images of said display apparatus (col. 2, lines 51-59).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5-12, 16-18, 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato in view of Wynne (U.S. Pat. No. 4,933,660).

As to claims 1, Sato (figs. 1, 5) shows a coordinate input apparatus comprising: a coordinate plate (note the vibration transfer plate 8 in figure 1) having a plurality of pieces of coordinate information (col. 2, lines 34-50; figure 5 shows areas 1 to 4 having a plurality of pieces of coordinate information), each corresponding to an X-coordinate value and a plurality of pieces of coordinate information each corresponding to a Y-coordinate value (note in figure 5, the plurality of pieces of coordinate information each corresponding to X and Y-coordinate value; col. 5, lines 12-18), said plurality of pieces of coordinate information are recorded on said coordinate plate (note in fig. 2, memory ROM for recording coordinate information); input-indicating means for indicating a position of the coordinate plate to be input and for detecting coordinate information in the vicinity of the position (col. 3, lines 14-29), and processing means for determining X-coordinate values and Y-coordinate values from the coordinate information detected by said input-indicating means and for determining the coordinate of the input position

on the basis of the X-coordinate values and Y-coordinate values (see figure 7; col. 6, lines 10-45).

Sato does not explicitly teach about “plurality of pieces of coordinate information are independently and intermittently recorded on a coordinate plate”.

However, in the same field of endeavor, Wynne (fig. 2) shows a touch sensor device, wherein pieces of coordinate information are independently recorded on a coordinate plate (col. 7, lines 30-39).

Therefore, it would have been obvious to one skilled in the art, at the time of the invention, to improve upon the touch sensor device, by specifically providing pieces of coordinate information independently and intermittently recorded, as disclosed by Wynne. By doing so, a coordinate input apparatus can be utilized to just produce a signal that is proportional to the pressure, or this signal can be converted in the readout means into a specific value of pressure, such as pounds per square inch, etc.

As to claims 2, 3 and 28, Sato discloses an apparatus, wherein the coordinate information comprises a dot array, at least one part of said dot array corresponding to X-coordinate values being different from another part of said dot array corresponding to Y-coordinate values, and wherein said dot array of the coordinate information is formed of a plurality of rows and a plurality of columns (col. 2, lines 51-59).

As to claim 5, Sato discloses an apparatus, wherein said dot array of the coordinate information has an arrangement wherein dots are formed with predetermined intervals (col. 2, lines 53-64).

As to claim 6, Sato discloses an apparatus, further comprising a display apparatus formed as an input-output integrated type (note the display 11 formed behind the vibration transfer plate 8).

As to claims 7-10 and 26-27, Sato discloses an apparatus, wherein the coordinate plate (8) and the display apparatus (11) are formed with a space therebetween, and wherein said coordinate plate and said display apparatus are disposed close to each other and said coordinate plate also serves as a part of said display apparatus. Sato teaches that the plurality of pieces of coordinate information are recorded on the coordinate plate (the coordinate plate 8 comprising a display apparatus (11) integrating with the plate 8) so as to be positionally related to a plurality of display pixels (note the dot) forming display images of said display apparatus (see figure 1).

As to claims 11 and 12, method claims 11 and 12 correspond to apparatus claim 1. Therefore, they are analyzed as previously discussed in claim 1 above.

As to claims 16-18, the claims have substantially the limitations of claims 9-10. therefore, they are analyzed as previously discussed in claims 9-10 above.

As to claim 25, the claim has substantially the limitations of claim 1, therefore, it is analyzed as previously discussed in claim 1.

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato in view of Wynne as applied to claim 1 above, and further in view of Bennett (U.S. Pat. No. 4,933,660).

As to claim 4, Sato does not teach about an apparatus, wherein the dot array of the coordinate information has an L-shaped arrangement.

However, in the same field of endeavor, Bennett (fig. 6) shows an active matrix area of a tablet, wherein the dot array of the coordinate information has an L-shaped arrangement.

Therefore, it would have been obvious to one skilled in the art, at the time of the invention, to combine Sato with the teaching of Bennett. Doing so would provide a system uniquely adapted for high resolution input applications, which is robust, accurate, provides a high sampling rate and may be produced at a reasonable cost in current available technology.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kaneko et al. (U.S. Pat. No. 5,017,913) disclose a coordinate input apparatus.

Tanaka et al. (U.S. Pat. No. 5,818,429) disclose a coordinate input apparatus which can accurately calculate a coordinate position by two vibration sensors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse whose telephone number is (703)-308-8534. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven J Saras can be reached on (703)-305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-306-0377.



Fritz Alphonse

Art Unit 2675

September 17, 2003



STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600